

# Recombinant Murine Mesencephalic Astrocyte-Derived Neurotrophic Factor (rMuMANF)

## ChemWhat Technical Data Sheet (TDS)

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<b>Catalog Number:</b>	127-15
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 18.2 kDa, a single non-glycosylated polypeptide chain containing 158 amino acids.
<b>Quantity:</b>	5µg/25µg/1000µg
<b>AA Sequence:</b>	LRPGDCEVCI SYLGRFYQDL KDRDVTFSPA TIEELIKFC REARGKENRL CYYIGATDDA ATKIINEVSK PLAHHIPVEK ICEKLKKKDS QICELKYDNQ IDLSTVDLKK LRVKELKKIL DDWGEMCKGC AEKSDYIRKI NELMPKYAPK AASARTDL
<b>Purity:</b>	> 98 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using rat C6 cells is less than 10 µg/ml, corresponding to a specific activity of > 100 IU/mg.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
<b>Endotoxin:</b>	Less than 0.1 EU/µg of rMuMANF as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C . Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

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### *Murine Mesencephalic Astrocyte-Derived Neurotrophic Factor*

MANF is a secreted neurotrophic factor that is expressed in brain, neuronal and certain non-neuronal tissues. It has been shown to promote survival, growth and function of dopamine specific neurons. MANF and its structural homolog CDFN, each contain an N-terminal saposin-like lipid binding domain, and a carboxyl-terminal domain, which is not homologous to previously characterized protein structures. MANF and CDFN can prevent 6-OHDA induced degeneration of dopaminergic neurons by triggering survival pathways in a rat experimental model of Parkinson disease. Mature murine MANF is 99 %, 98 % and 95 % a.a. identical to mature rat, human and bovine MANF respectively.